

**ABSTRACT**

A safety syringe assembly includes an elongated, generally cylindrical barrel having a hollow interior forming a hollow nozzle located at a distal end of the barrel and opening  
5 into the interior of the barrel. A plunger is slidably mounted in the barrel and has a longitudinal open channel. A needle holder mounts a needle at a distal end thereof and is slidably mounted in the longitudinal open channel of the plunger for movement between an advanced position in which the needle on the distal end of the needle holder projects from a distal end of the nozzle, and a retracted position in which the needle is retracted  
10 within the barrel. A compression spring is mounted inside of the barrel, and a spring retainer element has a spring support portion extending from the interiorly of the barrel to a portion for mounted within the barrel and supporting a distal end portion of the spring against expansion. The spring urges the needle holder toward its retracted position. A latch has a closed position in which the needle holder is latched relative to the barrel to  
15 hold the needle holder in its advanced position against the urging of the spring, and an open position in which the needle holder is unlatched relative to the barrel to allow the spring to expand in a proximal direction to move the needle holder to its retracted position.